

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/IB2004/002497

International filing date (day/month/year)
11.06.2004

Priority date (day/month/year)
13.06.2003

International Patent Classification (IPC) or both national classification and IPC
B32B27/34

Applicant
TECNO COATING ENGINEERING S.R.L.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2004/002497

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2004/002497

Box No. II Priority

1. ☒ The following document has not been furnished:

- ☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).
- ☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|------|
| Novelty (N) | Yes: Claims | 6-29 |
| | No: Claims | 1-5 |
| Inventive step (IS) | Yes: Claims | |
| | No: Claims | 1-29 |
| Industrial applicability (IA) | Yes: Claims | 1-29 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2004/002497

Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|------|
| Novelty (N) | Yes: Claims | 6-29 |
| | No: Claims | 1-5 |
| Inventive step (IS) | Yes: Claims | |
| | No: Claims | 1-29 |
| Industrial applicability (IA) | Yes: Claims | 1-29 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The following document is mentioned for the first time in this written opinion; the numbering will be adhered to in the rest of the procedure:

D1: EP-A-0800915

Novelty:

Document D1 discloses (cf. figure 1; column 1, lines 5 - 24; column 4, lines 20 - 37; the claims; column 7, line 45 - column 11, line 20) a blown (and thus biaxially oriented) film with shrink properties comprising in sequence the following layers:

- layer 15: an outer nylon layer
- layer 13: an adhesive layer (eg. anhydride modified polyolefin)
- layer 11: a nylon layer (eg. nylon 6)
- layer 10: an inner EVOH layer
- layer 12: a nylon layer (eg. nylon 6)
- layer 14: an adhesive layer (eg. anhydride modified polyolefin)
- layer 16: an outer sealant layer (eg. LLDPE or LDPE or ionomer)

The layers are not crosslinked. The outer sealant layer melts at a lower temperature than the other layers. The three nylon layers have a higher Young's modulus than the other layers, whereas one of these layers is on the outside and the other layers are on the inside of the film. The three nylon layers are separated from each other by layers with lower Young modulus.

Hence, all features of independent product claim 1 are disclosed in combination in D1, making the subject-matter of this claim not novel; Article 33(2) PCT.

The subject-matter of dependent claims 2 - 5 also does not appear to be novel; Article 33(2) PCT.

The subject-matter of claims 6 - 29 differs from the subject-matter of D1 at least in that according to D1 an EVOH core layer is present, whereas according to the present

application the corresponding layer D either:

- consists of a terionomer (i.e. in claims 7 - 12, 19 - 24)
- consists of LLDPE modified with maleic anhydride (i.e. claims 13 - 15, 25, 26)
- consists of an EVA/ethylene methacrylic acid copolymer (i.e. claims 16, 17, 27, 28, 29)
- consists of one of the above (claims 6, 18).

Hence, the subject-matter of claims 6 - 29 is novel in view of D1; Article 33(2) PCT.

Inventive Step:

The differences identified above, do not appear to lead to any technical effects. The problem underlying claims 6 - 29 can, therefore, only be regarded as to provide alternative shrink wrap films.

It would be obvious for the skilled person, starting from D1, to come up with all the alternative structures claimed in claims 6 - 29. Hence, no inventive step can be acknowledged for the subject-matter of these claims; Article 33(3) PCT.

Industrial Applicability:

The subject-matter of claims 1 - 29 is industrially applicable; Article 33(4) PCT.

Re Item VII

Certain defects in the international application

- 1) To meet the requirements of Rule 5.1(a)(ii) PCT, the document D1 should be identified in the description and the relevant background art disclosed therein should be briefly summarised in an objective way.
- 2) To meet the requirements of Rule 6.3(b) PCT the independent claims should be properly cast in the two part form, with those features which in combination are part of the prior art (see document D1) being placed in the preamble.

- 3) The reference to the patent application on page 4, line 5 should be replaced by a reference to its publication number (EP-A-1410902). Since this document was published after the priority date of the present application, its publication date (21.04.2004) should also be mentioned.
- 4) In order to expedite further examination you are requested to indicate with any possible reply the locations in the application as originally filed of the passages forming a basis for any possible amendments. The Applicant's attention is drawn to the fact that, according to the PCT Guidelines, 20.08, only retyped replacement sheets are allowed.

Re Item VIII

Certain observations on the international application

The present set of claims does not meet the requirements of Article 6 PCT for the following reasons:

- 1) The expression "starting from **the layer in contact with the product**", which is present in the claims as from claim 6 is confusing. It is quite clear from the application as a whole, that protection is sought for the film only, i.e. without the product to be packaged. The present claims, however, relate to both the film and the packaged product. This objection may be overcome by defining that "in use the layer is in contact with the product".
- 2) Claims 7 - 29 repeat quite a bit of the wording of claim 6, making these claims and the set of claims not concise. ?
- 3) Claims 1 - 4 define a shrink film only by reference to desirable properties. In fact all films having these properties are claims, whereas there is support in the sense of Article 6 PCT only for a very limited number of such films, namely the films as defined in claims 7 - 29. Claims 1 - 4 do not meet the support requirements of Article 6 PCT.

Furthermore it does not appear to be appropriate for reasons of clarity, to define the films by reference to these desired properties only. As demonstrated in claims 6 - 29, it is perfectly possible to define the films of the present invention in terms of product features, such as the nature of the materials of the various layers.

- 4) The terms "outside" and "inside" used in independent claim 1 are simply relative terms and cannot be used for distinguishing the film from any prior art film. Deletion of the terms might violate Article 19(2) PCT or 34(2)(b) PCT.
- 5) Having regard to the objections under the headings "novelty" and "inventive step" under section V, it is noted that claims 6 - 29 at the moment do not appear to be linked by same or corresponding special technical features in the sense of Rule 13.2 PCT, meaning that no single general inventive concept in the sense of Rule 13.1 PCT can be distinguished. At the moment, it appears that the requirements of unity of invention are not met.

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Our Ref.: EL/1B1-18916

Milan, January 5th 2005

To the attention of Alicja Van der Heijden

International Patent Application No. PCT/IB2004/002497 filed on June 11th
2004 - Applicant: TECNO COATING ENGINEERING S.r.l.

Dear Sirs,

With reference to the written opinion of 11/11/2004, the following are the remarks
of the applicant.

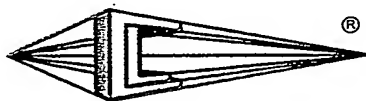
Re Item V

The applicant agrees with the examiner's opinion concerning claims 1, 2 and 5.

Nevertheless, as far as claims 3 and 4 are concerned, the applicant thinks that no
teaching can be found in document D1, about the problem of curling.

In claim 3 of the present application it is said that "said two layers with a higher
Young's modulus which are situated inside the film are located on the opposite
side, in relation to the neutral plane of the film, from the layer with a higher
Young's modulus which lies on the outside of the film". This is an important
feature, which cannot be found in D1.

The reason of said position inside the film is to balance the bending moment due
to constrained strain of the various layers, after the process of biaxial orientation.
In fact in the specification, at pag. 4 last paragraph and pag. 7 lines 19-24, as well
as in claim 4 of the present application is said that "the sequence of all the layers
constituting said film, and their thickness, from which the distance of each of said
layers from the neutral plane of said film derives, are determined in such a way
that the sum of the moments exerted by said layers in relation to said neutral
plane after the process of biaxial orientation is substantially nil".



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In view of above, the applicant is of the opinion that the subject matter of claims 6 to 29 has an inventive; in fact all the formulations involved comprise *"two layers with a higher Young's modulus which are situated inside the film are located on the opposite side, in relation to the neutral plane of the film, from the layer with a higher Young's modulus which lies on the outside of the film"*, said claims 6 to 29 being dependent from claim 3.

In addition, please note that the film disclosed in D1 is quite different from the film according to the present application.

The film according to D1 is neither heat shrinkable nor bioriented, but only thermoformable, as it appears from the production method of the same (e.g. as claimed in claim 13). In fact, since a phase of biaxial cold stretching is missing, the film cannot be heat shrinkable or bioriented.

A film according to D1 can be thermoformed because *"preferably has a thickness of from 2 to 10 mils (50 - 250 μ m), most preferably from 2.5 to 7.5 mils (63 - 190 μ m)"* (column 7 - lines 47-48, column 11 - lines 25-26, column 12 - lines 12-13, column 13 - lines 5-6 and 42-43)

A film having said thickness is apt to be thermoformed, so it doesn't be heat shrinkable and the curling effect is not so important.

At the light of the above, we have amended the claims, to make reference to these features.

Please find, enclosed herewith, a new set of claims, in which old claims 1 to 3 have been merged into a new independent claim 1.

The dependent claims have been amended accordingly.

Re Item VII

The document D1 has been identified in the description and the relevant prior art disclosed has been briefly summarized. Please find enclosed page 3 amended of the application.

The prior art from D1 just have been placed in the preamble of new claim 1.

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The reference to the patent application on page 4, line 5 of the present patent application has been modified as indicated.

Re Item VIII

- The expression in claim 6 ("*the layer in contact ...*") has been amended as indicated.
- Old claims 7 – 29 have been modified according to your request.
- Claim 1 to 4 defines shrink film comprising materials having specific properties, that is the physical properties that are necessary to meet the desired properties of the film. So the film isn't defined by reference to desirable properties of it, said film being the result of using such specific materials.
- The terms "outside" and "inside" have been substituted in claim 1.

The formulations claimed in claims 6 to 29 are embodiments of the invention claimed in original claims 1 to 5. In fact the various layers claimed are exactly the ones having the physical properties that are necessary to meet the desired properties of the film and their position along the thickness is according to old claim 3 of the present application.

As regards box No. II – Priority, you can find herewith enclosed a PCT notification attesting the date of receipt of priority document of the present application.

CON LOR SPA
Dot.ssa MARIA Grazia

Giovanna Marn

technique makes said polymers partly unmeltable, and in any event increases their melting point. Melting of the layers which come into contact with the heating plates during welding is consequently prevented by crosslinking them.

More recently, polyvinylidene chloride copolymer has been partly replaced by
5 another polymer with barrier properties, namely ethylene/vinyl alcohol copolymer (EVOH).

These shrink film structures usually comprise EVOH in the middle layer, sandwiched by polyolefins in the outer layers. Adherence between the various layers can be obtained with the use of special types of modified polyolefins, also
10 called "adhesives".

Mechanical strength and adherence between the layers can be improved by subjecting the film to irradiation with high-energy particles.

However, although the crosslinking technique solves the welding problem without causing curling and gives the film good mechanical strength, it also gives rise to a
15 serious problem, because it makes the polymers that constitute the film partly unmeltable, and this prevents them from being recycled.

An alternative technique to selective crosslinking, which would solve the welding problems and increase the mechanical strength of the film, would be to use high-strength polymers with a high melting point in the outer layer of the film.

20 However, in this case the two polymers, ie. the outer and inner ones, differ not only in terms of melting point but also of their modulus of elasticity and degree of crystallinity. As a result, differentiated tensions develop in the structure of the film and the film is pulled to one side, giving rise to the problem of curling already described.

25 A third problem is loss of transparency (haze) and gloss by the film after shrinking at the application stage. This problem, which adversely affects the final

European patent application EP 0 800 915 A2 discloses a multi-layer film using high Young's modulus in the outer layer, but the stretching is not balanced, so the film is subjected to curl.

appearance of the packaging, is mainly due to poor adherence between the layers, which shrink in different ways, and possibly to surface damage caused by the heat applied to obtain the shrinkage.

The above-mentioned problems involved in the prior art are solved by a plastic film conforming to patent application no. ~~MI2002A-002159~~ ^{EP-A-1410902} filed by the present applicant, namely a multilayer, non-crosslinked shrink film with gas barrier properties, characterised by:

- exceptional mechanical strength,
- easy welding and good welding resistance,
- 10 • optical characteristics superior to those of ordinary products on the market,
- little or no curling, despite its asymmetrical structure,
- good shrinkage characteristics,
- good adherence to the packaged contents,
- good oxygen and aqueous steam barrier properties.

15 All these characteristics have been obtained without the need to subject the film to ionising radiation treatment, but using a polymer with high mechanical strength and a high Young's modulus, which melts at a high temperature, in the outer layer.

In order to eliminate the problem of curling, other layers constituted by polymers with a high Young's modulus are inserted in a suitable position inside the laminate; 20 said layers act in such a way as to balance the effect of the outer layer, thus greatly reducing curling, and even eliminating it entirely in some compositions.

However, experiments conducted with numerous compositions demonstrate that these results tend to be somewhat unpredictable. This problem arises when the number of layers with a high modulus is greater than two and, in accordance with 25 said patent application, two or more of said layers are situated inside the laminate on the side of the neutral layer, opposite the side on which the external layer with

CLAIMS

1. Shrink film for wrapping foodstuffs, comprising:

- a plurality of overlaid layers constituted by non-crosslinked thermoplastic polymers of different natures, wherein the material that constitutes one of the outer layers melts at a lower temperature than the materials that constitute the other layers;
- three layers constituted by polymers having a Young's modulus substantially higher than that of the polymers which constitute the other layers;

5
10 ~~in which:~~
~~characterised in that:~~

- one of said three layers with a higher Young's modulus is ~~on the outside~~ *one of the two outer layer* of the film, whereas the other two layers with a higher Young's modulus are ~~on the inside~~ *inner layers* of the film;
- each of said three layers with a higher Young's modulus is separated from the other layers with a higher Young's modulus by at least one layer with a lower Young's modulus;

15 ~~and~~
~~2. Film as claimed in claim 1, characterised in that said three layers with a higher Young's modulus are highly impermeable to gases, especially oxygen and aqueous steam,~~

20 ~~3. Film as claimed in claim 1, characterised in that said two layers with a higher Young's modulus which are situated inside the film are located on the opposite side, in relation to the neutral plane of the film, from the layer with a higher Young's modulus which lies on the outside of the film.~~

25 ~~2~~ ¹ 4. Film as claimed in claim ~~3~~ ¹, characterised in that the sequence of all the layers constituting said film, and their thickness, from which the distance of each of said layers from the neutral plane of said film derives, are determined in such

a way that the sum of the moments exerted by said layers in relation to said neutral plane after the process of biaxial orientation is substantially nil, wherein:

- 5 • the moment exerted by a single layer in relation to the neutral plane is equal to the product of the membrane force exerted by said layer and the distance of the average plane of said layer from the neutral plane of the film;
- 10 • the membrane force exerted by said layer is equal to the product of the Young's modulus of the material which constitutes said layer, the thickness of said layer and the prevented shrinkage, expressed as a percentage.

~~5. Film as claimed in claims 1 to 3, characterised in that the layers with a higher Young's modulus are constituted by polymers of the polyamide family.~~

3 ~~6.~~ Film as claimed in claims 1 to ²~~5~~, characterised in that it comprises seven layers (A, B, C, D, E, F and G), starting from the layer that in use is in contact with the product, composed as follows:

- 20 • layer A, thickness 10 to 30%, welding layer – constitutes the internal part of the wrapping, and can be constituted by ionomers containing zinc or sodium, a low-density polyethylene or linear low-density polyethylene (LDPE/LLDPE), or an ethylene or octene plastomer;
- 25 • layer B, thickness 5 to 15%, first adhesive layer – consists of an adhesive polymer selected from among terionomers, or ethylene modified with maleic anhydride copolymers, or an EVA/ethylene methacrylic acid copolymer;
- layer C, thickness 10 to 20%, first barrier layer (mainly to aqueous steam) – consists of a polyamide polymer selected from among PA 6, PA 6/66,

amorphous or aliphatic PA or a mixture thereof, possibly with the addition of terionomers;

- layer D, thickness 10 to 20%, second adhesive layer – consists of an adhesive polymer selected from among terionomers, or ethylene modified with maleic anhydride copolymers, or of an EVA/ethylene methacrylic acid copolymer, and may be equal to or different from layer B;
- layer E, thickness 10 to 20%, second barrier layer (mainly to aqueous steam) – consists of a polyamide polymer selected from among PA 6, PA 6/66, amorphous or aliphatic PA or a mixture thereof, possibly with the addition of terionomers, and may be equal to or different from layer C, alternatively, PVA or PGA can be used;
- layer F, thickness 5 to 15%, third adhesive layer – consists of an adhesive polymer selected from among terionomers, or ethylene modified with maleic anhydride copolymers, or of an EVA/ethylene methacrylic acid copolymer, and may be equal to or different from layers B and D;
- layer G, thickness 5 to 25%, outer layer and fourth barrier layer (mainly to aqueous steam) – consists of a polyamide polymer selected from among PA 6 or PA 6/66.

4 7. Film as claimed in claim ³ 6, characterised in that ~~it comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product,~~
 20 ~~composed as follows:~~

- ^{said} layer A, thickness 10 to 30%, welding layer – constitutes the inner part of the wrapping, and is constituted by ionomers containing zinc or sodium;
- ^{said} layer B, thickness 5 to 10%, first adhesive layer – consists of a terionomer;
- ^{said} layer C, thickness 10 to 20%, first barrier layer (mainly to aqueous steam)

– consists of a polyamide polymer selected from among polyamides PA 6/66;

^{said}
• Y layer D, thickness 10 to 20%, second adhesive layer – consists of an adhesive polymer selected from among the terionomers;

5 ^{said}
• Y layer E, thickness 10 to 20%, second barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66;

^{said}
• Y layer F, thickness 5 to 15%, third adhesive layer – consists of an adhesive polymer selected from among the terionomers;

^{said}
• Y layer G, thickness 5 to 25%, outer layer and third barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66.

5 ~~8.~~ ³ Film as claimed in claim ~~6~~, characterised in that it ~~comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product, composed as follows:-~~

^{said}
• Y layer A, thickness 10 to 30%, welding layer – constitutes the inner part of the wrapping, and is constituted by ionomers containing zinc or sodium;

^{said}
• Y layer B, thickness 5 to 15%, first adhesive layer – consists of a terionomer;

^{said}
• Y layer C, thickness 10 to 20%, first barrier layer (mainly to aqueous steam) – consists of a mixture of polyamides PA 6/66 and aliphatic PA;

20 ^{said}
• Y layer D, thickness 10 to 20%, second adhesive layer – consists of an adhesive polymer selected from among the terionomers;

^{said}
• Y layer E, thickness 10 to 20%, second barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66;

^{said}
• Y layer F, thickness 5 to 15%, third adhesive layer – consists of an adhesive polymer selected from among the terionomers;

25 ^{said}
• Y layer G, thickness 5 to 25%, outer layer and third barrier layer (mainly to

aqueous steam) – consists of a polyamide polymer PA 6/66.

6 ~~9~~. Film as claimed in claim ³~~6~~, characterised in that it ~~comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product, composed as follows:-~~

5 ~~Said~~ • layer A, thickness 10 to 30%, welding layer – constitutes the inner part of the wrapping, and is constituted by ionomers containing zinc or sodium;

~~Said~~ • layer B, thickness 5 to 15%, first adhesive layer – consists of a terionomer;

~~Said~~ • layer C, thickness 10 to 20%, first barrier layer (mainly to aqueous steam) – consists of a mixture of polyamides PA 6/66 + amorphous PA blended with a terionomer;

~~Said~~ • layer D, thickness 10 to 20%, second adhesive layer – consists of an adhesive polymer selected from among the terionomers;

~~Said~~ • layer E, thickness 10 to 20%, second barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66;

15 ~~Said~~ • layer F, thickness 5 to 15%, third adhesive layer – consists of an adhesive polymer selected from among the terionomers;

~~Said~~ • layer G, thickness 5 to 25%, outer layer and third barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66.

20 ~~7-10~~. Film as claimed in claim ³~~6~~, characterised in that it ~~comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product, composed as follows:-~~

~~Said~~ • layer A, thickness 10 to 30%, welding layer – constitutes the inner part of the wrapping, and is constituted by ionomers containing zinc or sodium;

25 ~~Said~~ • layer B, thickness 5 to 15%, first adhesive layer – consists of a terionomer;

said

- Y layer C, thickness 10 to 20%, first barrier layer (mainly to aqueous steam)
– consists of a polyamide polymer selected from among polyamides PA

6/66;

said

- Y layer D, thickness 10 to 20%, second adhesive layer – consists of an
5 adhesive polymer selected from among the terionomers;

said

- Y layer E, thickness 10 to 20%, second barrier layer (mainly to aqueous
steam) – consists of a mixture of polyamides PA 6/66 + amorphous PA;

said

- Y layer F, thickness 5 to 15%, third adhesive layer – consists of an adhesive
polymer selected from among the terionomers;

said

- 10 • Y layer G, thickness 5 to 25%, outer layer and third barrier layer (mainly to
aqueous steam) – consists of a polyamide polymer PA 6/66.

8 44. Film as claimed in claim ³ 6, characterised in that ~~it comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product,~~
composed as follows:

said

- 15 • Y layer A, thickness 10 to 30%, welding layer – constitutes the inner part of
the wrapping, and is constituted by ionomers containing zinc or sodium;

said

- Y layer B, thickness 5 to 15%, first adhesive layer – consists of a
terionomer;

said

- 20 • Y layer C, thickness 10 to 20%, first barrier layer (mainly to aqueous steam)
– consists of a polyamide polymer selected from among polyamides PA

6/66;

said

- Y layer D, thickness 10 to 20%, second adhesive layer – consists of an
adhesive polymer selected from among the terionomers;

said

- 25 • Y layer E, thickness 10 to 20%, second barrier layer (mainly to aqueous
steam) – consists of a mixture of polyamides PA 6/66 + amorphous PA
blended with a terionomer;

said

- *Y* layer F, thickness 5 to 15%, third adhesive layer – consists of an adhesive polymer selected from among the terionomers;

said

- *Y* layer G, thickness 5 to 25%, outer layer and third barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66.

5 ⁹ 42. Film as claimed in claim ²~~6~~, characterised in that ~~it comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product,~~
~~composed as follows:~~

said

- *Y* layer A, thickness 10 to 30%, welding layer – constitutes the inner part of the wrapping, and is constituted by ionomers containing zinc or sodium;

said

- 10 • *Y* layer B, thickness 5 to 15%, first adhesive layer – consists of a terionomer;

said

- *Y* layer C, thickness 10 to 20%, first barrier layer (mainly to aqueous steam) – consists of a polyamide polymer selected from among polyamides PA 6/66;

said

- 15 • *Y* layer D, thickness 10 to 20%, second adhesive layer – consists of an adhesive polymer selected from among the terionomers;

said

- *Y* layer E, thickness 10 to 20%, second barrier layer (mainly to aqueous steam) – consists of an aliphatic PA polymer;

said

- 20 • *Y* layer F, thickness 5 to 15%, third adhesive layer – consists of an adhesive polymer selected from among the terionomers;

said

- *Y* layer G, thickness 5 to 25%, outer layer and third barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66.

10 ~~43~~. Film as claimed in claim ³~~6~~, characterised in that ~~it comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product,~~

25 ~~composed as follows:~~

said

- *Y* layer A, thickness 10 to 30%, welding layer – constitutes the inner part of

the wrapping, and is constituted by an ethylene or octene plastomer

said

• layer B, thickness 5 to 15%, first adhesive layer – consists of LLDPE

modified with maleic anhydride;

said

• layer C, thickness 10 to 20%, first barrier layer (mainly to aqueous steam)

5

– consists of a mixture of polyamides PA 6/66 + amorphous PA;

said

• layer D, thickness 10 to 20%, second adhesive layer – consists of LLDPE

modified with maleic anhydride;

said

• layer E, thickness 10 to 20%, second barrier layer (mainly to aqueous

steam) – consists of a polyamide polymer PA 6/66;

said

10 • layer F, thickness 5 to 15%, third adhesive layer – consists of LLDPE

modified with maleic anhydride;

said

• layer G, thickness 5 to 25%, outer layer and third barrier layer (mainly to

aqueous steam) – consists of a polyamide polymer PA 6/66.

11

44. Film as claimed in claim ³ 6, characterised in that ~~it comprises seven layers (A,~~

15

~~B, C, D, E, F and G), starting from the layer in contact with the product,~~

~~composed as follows:~~

said

• layer A, thickness 10 to 30%, welding layer – constitutes the inner part of

the wrapping, and is constituted by LLDPE;

said

• layer B, thickness 5 to 15%, first adhesive layer – consists of LLDPE

20

modified with maleic anhydride;

said

• layer C, thickness 10 to 20%, first barrier layer (mainly to aqueous steam)

– consists of a mixture of polyamides PA 6/66 + amorphous PA;

said

• layer D, thickness 10 to 20%, second adhesive layer – consists of LLDPE

modified with maleic anhydride;

said

25 • layer E, thickness 10 to 20%, second barrier layer (mainly to aqueous

steam) – consists of a polyamide polymer PA 6/66;

said

- layer F, thickness 5 to 15%, third adhesive layer – consists of LLDPE modified with maleic anhydride;

said

- layer G, thickness 5 to 25%, outer layer and third barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66.

5 12 15. Film as claimed in claim ³ 6, characterised in that ~~it comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product,~~
composed as follows:-

said

- layer A, thickness 10 to 30%, welding layer – constitutes the inner part of the wrapping, and is constituted by LDPE;

said

- 10 • layer B, thickness 5 to 15%, first adhesive layer – consists of an EVA/ethylene methacrylic acid copolymer;

said

- layer C, thickness 10 to 20%, first barrier layer (mainly to aqueous steam) – consists of a mixture of polyamides PA 6/66 + PA 6;

said

- 15 • layer D, thickness 10 to 20%, second adhesive layer – consists of an EVA/ethylene methacrylic acid copolymer;

said

- layer E, thickness 10 to 20%, second barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66;

said

- layer F, thickness 5 to 15%, third adhesive layer – consists of an EVA/ethylene methacrylic acid copolymer;

- 20 • layer G, thickness 5 to 25%, outer layer and third barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66.

13 16. Film as claimed in claim ³ 6, characterised in that ~~it comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product,~~
~~composed as follows:-~~

said

- 25 • layer A, thickness 10 to 30%, welding layer – constitutes the inner part of the wrapping, and is constituted by ionomers containing zinc or sodium;

^{said}
 • layer B, thickness 5 to 15%, first adhesive layer – consists of a terionomer;

^{said}
 • layer C, thickness 10 to 20%, first barrier layer (mainly to aqueous steam) – consists of a polyamide polymer selected from among polyamides PA 6/66;

^{said}
 • layer D, thickness 10 to 20%, second adhesive layer – consists of an EVA/ethylene methacrylic acid copolymer;

^{said}
 • layer E, thickness 10 to 20%, second barrier layer (mainly to aqueous steam) – consists of PVA (polyvinyl alcohol);

^{said}
 • layer F, thickness 5 to 15%, third adhesive layer – consists of an EVA/ethylene methacrylic acid copolymer;

^{said}
 • layer G, thickness 5 to 25%, outer layer and third barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66.

14 47. Film as claimed in claim ³~~6~~, characterised in that ~~it comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product, composed as follows:-~~

^{said}
 • layer A, thickness 10 to 30%, welding layer – constitutes the inner part of the wrapping, and is constituted by ionomers containing zinc or sodium;

^{said}
 • layer B, thickness 5 to 15%, first adhesive layer – consists of a terionomer;

^{said}
 • layer C, thickness 10 to 20%, first barrier layer (mainly to aqueous steam) – consists of a polyamide polymer selected from among polyamides PA 6/66;

^{said}
 • layer D, thickness 10 to 20%, second adhesive layer – consists of an EVA/ethylene methacrylic acid copolymer;

^{said}
 • layer E, thickness 10 to 20%, second barrier layer (mainly to aqueous

steam) – consists of PGA (polyglycolic acid);

Said

- *Y* layer F, thickness 5 to 15%, third adhesive layer – consists of an

EVA/ethylene methacrylic acid copolymer;

Said

- *Y* layer G, thickness 5 to 25%, outer layer and third barrier layer (mainly to

5 aqueous steam) – consists of a polyamide polymer PA 6/66.

15 48. Film as claimed in claim ²~~6~~, characterised in that ~~it comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product, composed as follows:~~

Said

- *Y* layer A, thickness 20%, welding layer – constitutes the inner part of the
- 10 wrapping, and can be constituted by ionomers containing zinc or sodium, a low-density polyethylene or linear low-density polyethylene (LDPE/LLDPE), or an ethylene or octene plastomer;

Said

- *Y* layer B, thickness 10%, first adhesive layer – consists of an adhesive
- 15 polymer selected from among ethylene copolymers or terionomers modified with maleic anhydride, or of an EVA/ethylene methacrylic acid copolymer;

Said

- *Y* layer C, thickness 15%, first barrier layer (mainly to aqueous steam) –
- consists of a polyamide polymer selected from among PA 6, PA 6/66, amorphous or aliphatic PA or a mixture thereof, possibly with the addition
- 20 of terionomers;

Said

- *Y* layer D, thickness 15%, second adhesive layer – consists of an adhesive
- polymer selected from among terionomers, or ethylene modified with maleic anhydride copolymers, or of an EVA/ethylene methacrylic acid copolymer, and may be equal to or different from layer B;

Said

- *Y* layer E, thickness 15%, second barrier layer (mainly to aqueous steam) –
- 25 consists of a polyamide polymer selected from among PA 6, PA 6/66,

amorphous or aliphatic PA or a mixture thereof, possibly with the addition of terionomers, and may be equal to or different from layer C; alternatively, PVA (polyvinyl alcohol) or PGA (polyglycolic acid) can be used;

- 5 • ^{said} layer F; thickness 10%, third adhesive layer – consists of an adhesive polymer selected from among terionomers, or ethylene modified with maleic anhydride copolymers, or of an EVA/ethylene methacrylic acid copolymer, and may be equal to or different from layers B and D;

- 10 • ^{said} layer G, thickness 15%, outer layer and fourth barrier layer (mainly to aqueous steam) – consists of a polyamide polymer selected from among PA 6 and PA 6/66.

16 ~~49~~ ³ Film as claimed in claim ~~6~~, characterised in that ~~it comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product,~~ composed as follows:

- 15 • ^{said} layer A, thickness 20%, welding layer – constitutes the inner part of the wrapping, and is constituted by ionomers containing zinc or sodium;

- ^{said} layer B, thickness 10%, first adhesive layer – consists of a terionomer;

- ^{said} layer C, thickness 15%, first barrier layer (mainly to aqueous steam) – consists of a polyamide polymer selected from among polyamides PA

20 6/66;

- ^{said} layer D, thickness 15%, second adhesive layer – consists of an adhesive polymer selected from among the terionomers;

- ^{said} layer E, thickness 15%, second barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66;

- 25 • ^{said} layer F, thickness 10%, third adhesive layer – consists of an adhesive polymer selected from among the terionomers;

^{said}

- ^{said} layer G, thickness 15%, outer layer and third barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66.

~~17 20. Film as claimed in claim ³6, characterised in that it comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product,~~

~~5 composed as follows:~~

^{said}

- ^{said} layer A, thickness 20%, welding layer – constitutes the inner part of the wrapping, and is constituted by ionomers containing zinc or sodium;

^{said}

- ^{said} layer B, thickness 10%, first adhesive layer – consists of a terionomer;

^{said}

- ^{said} layer C, thickness 15%, first barrier layer (mainly to aqueous steam) –

~~10 consists of a mixture of polyamides PA 6/66 + aliphatic PA;~~

^{said}

- ^{said} layer D, thickness 15%, second adhesive layer – consists of an adhesive polymer selected from among the terionomers;

^{said}

- ^{said} layer E, thickness 15%, second barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66;

^{said}

~~15 • ^{said} layer F, thickness 10%, third adhesive layer – consists of an adhesive polymer selected from among the terionomers;~~

^{said}

- ^{said} layer G, thickness 15%, outer layer and third barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66.

~~18 21. Film as claimed in claim ³6, characterised in that it comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product,~~

~~20 composed as follows:~~

^{said}

- ^{said} layer A, thickness 20%, welding layer – constitutes the inner part of the wrapping, and is constituted by ionomers containing zinc or sodium;

^{said}

- ^{said} layer B, thickness 10%, first adhesive layer – consists of a terionomer;

^{said}

~~25 • ^{said} layer C, thickness 15%, first barrier layer (mainly to aqueous steam) – consists of a mixture of polyamides PA 6/66 + amorphous PA blended~~

with a terionomer;

- ^{said} layer D, thickness 15%, second adhesive layer – consists of an adhesive

polymer selected from among the terionomers;

- ^{said} layer E, thickness 15%, second barrier layer (mainly to aqueous steam) –

5 consists of a polyamide polymer PA 6/66;

- ^{said} layer F, thickness 10%, third adhesive layer – consists of an adhesive

polymer selected from among the terionomers;

- ^{said} layer G, thickness 15%, outer layer and third barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66.

10 ¹⁹ 22. Film as claimed in claim ³ 6, characterised in that ~~it comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product, composed as follows:~~

- ^{said} layer A, thickness 20%, welding layer – constitutes the inner part of the wrapping, and is constituted by ionomers containing zinc or sodium;

15 • ^{said} layer B, thickness 10%, first adhesive layer – consists of a terionomer;

- ^{said} layer C, thickness 15%, first barrier layer (mainly to aqueous steam) – consists of a polyamide polymer selected from among polyamides PA

6/66;

20 • ^{said} layer D, thickness 15%, second adhesive layer – consists of an adhesive polymer selected from among the terionomers;

- ^{said} layer E, thickness 15%, second barrier layer (mainly to aqueous steam) – consists of a mixture of polyamides PA 6/66 + amorphous PA;

- ^{said} layer F, thickness 10%, third adhesive layer – consists of an adhesive polymer selected from among the terionomers;

25 • ^{said} layer G, thickness 15%, outer layer and third barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66.

~~20-23.~~ Film as claimed in claim ³~~6~~, characterised in that it ~~comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product,~~
~~composed as follows:~~

said

• ~~Y~~ layer A, thickness 20%, welding layer – constitutes the inner part of the
 5 wrapping; and is constituted by ionomers containing zinc or sodium;

said

• ~~Y~~ layer B, thickness 10%, first adhesive layer – consists of a terionomer;

said

• ~~Y~~ layer C, thickness 15%, first barrier layer (mainly to aqueous steam) –
 consists of a polyamide polymer selected from among polyamides PA

6/66;

said

10 • ~~Y~~ layer D, thickness 15%, second adhesive layer – consists of an adhesive
 polymer selected from among the terionomers;

said

• ~~Y~~ layer E, thickness 15%, second barrier layer (mainly to aqueous steam) –
 consists of a mixture of polyamides PA 6/66 + amorphous PA blended
 with a terionomer;

said

15 • ~~Y~~ layer F, thickness 10%, third adhesive layer – consists of an adhesive
 polymer selected from among the terionomers;

said

• ~~Y~~ layer G, thickness 15%, outer layer and third barrier layer (mainly to
 aqueous steam) – consists of a polyamide polymer PA 6/66.

~~21-24.~~ Film as claimed in claim ³~~6~~, characterised in that it ~~comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product,~~
~~composed as follows:~~

said

• ~~Y~~ layer A, thickness 20%, welding layer – constitutes the inner part of the
 wrapping; and is constituted by ionomers containing zinc or sodium;

said

• ~~Y~~ layer B, thickness 10%, first adhesive layer – consists of a terionomer;

said

25 • ~~Y~~ layer C, thickness 15%, first barrier layer (mainly to aqueous steam) –
 consists of a polyamide polymer selected from among polyamides PA

6/66;

Said

- *Y* layer D, thickness 15%, second adhesive layer – consists of an adhesive polymer selected from among the terionomers;

Said

- *Y* layer E, thickness 15%, second barrier layer (mainly to aqueous steam) – consists of an aliphatic PA polymer;

Said

- *Y* layer F, thickness 10%, third adhesive layer – consists of an adhesive polymer selected from among the terionomers;

Said

- *Y* layer G, thickness 15%, outer layer and third barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66.

10 ²²~~25~~. Film as claimed in claim ³~~6~~, characterised in that ~~it comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product, composed as follows:-~~

Said

- *Y* layer A, thickness 20%, welding layer – constitutes the inner part of the wrapping, and is constituted by an ethylene or octene plastomer;

Said

- 15 • *Y* layer B, thickness 10%, first adhesive layer – consists of LLDPE modified with maleic anhydride;

Said

- *Y* layer C, thickness 15%, first barrier layer (mainly to aqueous steam) – consists of a mixture of polyamides PA 6/66 + amorphous PA;

Said

- 20 • *Y* layer D, thickness 15%, second adhesive layer – consists of LLDPE modified with maleic anhydride;

Said

- *Y* layer E, thickness 15%, second barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66;

Said

- 25 • *Y* layer F, thickness 10%, third adhesive layer – consists of LLDPE modified with maleic anhydride;

Said

- *Y* layer G, thickness 15%, outer layer and third barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66.

~~23 26.~~ Film as claimed in claim ~~6~~³, characterised in that ~~it comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product,~~
~~composed as follows:~~

~~Said~~
 • Y layer A, thickness 20%, welding layer – constitutes the inner part of the
 5 wrapping, and is constituted by LLDPE;

~~Said~~
 • Y layer B, thickness 10%, first adhesive layer – consists of LLDPE modified
 with maleic anhydride;

~~Said~~
 • Y layer C, thickness 15%, first barrier layer (mainly to aqueous steam) –
 consists of a mixture of polyamides PA 6/66 + amorphous PA;
 10 ~~Said~~
 • Y layer D, thickness 15%, second adhesive layer – consists of LLDPE
 modified with maleic anhydride;

~~Said~~
 • Y layer E, thickness 15%, second barrier layer (mainly to aqueous steam) –
 consists of a polyamide polymer PA 6/66;
 15 ~~Said~~
 • Y layer F, thickness 10%, third adhesive layer – consists of LLDPE modified
 with maleic anhydride;

~~Said~~
 • Y layer G, thickness 15%, outer layer and third barrier layer (mainly to
 aqueous steam) – consists of a polyamide polymer PA 6/66.

~~24 27.~~ Film as claimed in claim ~~6~~³, characterised in that ~~it comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product,~~
 20 ~~composed as follows:~~

~~Said~~
 • Y layer A, thickness 20%, welding layer – constitutes the inner part of the
 wrapping, and is constituted by LDPE;

~~Said~~
 • Y layer B, thickness 10%, first adhesive layer – consists of an EVA/ethylene
 methacrylic acid copolymer;

~~Said~~
 • Y layer C, thickness 15%, first barrier layer (mainly to aqueous steam) –
 25 consists of a mixture of polyamides PA 6/66 + PA 6;

said

• layer D, thickness 15%, second adhesive layer – consists of an EVA/ethylene methacrylic acid copolymer;

said

• layer E, thickness 15%, second barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66;

said

5 • layer F, thickness 10%, third adhesive layer – consists of an EVA/ethylene methacrylic acid copolymer;

said

• layer G, thickness 15%, outer layer and third barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66.

25 29. Film as claimed in claim ³~~6~~, characterised in that ~~it comprises seven layers (A, B, C, D, E, F and G), starting from the layer in contact with the product, composed as follows:—~~

said

• layer A, thickness 20%, welding layer – constitutes the inner part of the wrapping, and is constituted by ionomers containing zinc or sodium;

said

• layer B, thickness 10%, first adhesive layer – consists of a terionomer;

said

15 • layer C, thickness 15%, first barrier layer (mainly to aqueous steam) – consists of a polyamide polymer selected from among polyamides PA 6/66;

said

• layer D, thickness 15%, second adhesive layer – consists of an EVA/ethylene methacrylic acid copolymer;

said

20 • layer E, thickness 15%, second barrier layer (mainly to aqueous steam) – consists of PVA (polyvinyl alcohol);

said

• layer F, thickness 10%, third adhesive layer – consists of an EVA/ethylene methacrylic acid copolymer;

said

25 • layer G, thickness 15%, outer layer and third barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66.

26 29. Film as claimed in claim ³~~6~~, characterised in that ~~it comprises seven layers (A,~~

~~B, C, D, E, F and G), starting from the layer in contact with the product, composed as follows:~~

Said

- layer A, thickness 20%, welding layer – constitutes the inner part of the wrapping, and is constituted by ionomers containing zinc or sodium;

Said

- 5
- layer B, thickness 10%, first adhesive layer – consists of a terionomer;

Said

- layer C, thickness 15%, first barrier layer (mainly to aqueous steam) – consists of a polyamide polymer selected from among polyamides PA 6/66;

Said

- 10
- layer D, thickness 15%, second adhesive layer – consists of an EVA/ethylene methacrylic acid copolymer;

Said

- layer E, thickness 15%, second barrier layer (mainly to aqueous steam) – consists of PGA (polyglycolic acid);

Said

- layer F, thickness 10%, third adhesive layer – consists of an EVA/ethylene methacrylic acid copolymer;

Said

- 15
- layer G, thickness 15%, outer layer and third barrier layer (mainly to aqueous steam) – consists of a polyamide polymer PA 6/66.

PATENT COOPERATION TREATY

PCT

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| | |
|--|---|
| Date of mailing (day/month/year) 07 October 2004 (07.10.2004) | IMPORTANT NOTIFICATION |
| Applicant's or agent's file reference 18916 | |
| International application No. PCT/IB2004/002497 | International filing date (day/month/year) 11 June 2004 (11.06.2004) |
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| Applicant TECNO COATING ENGINEERING S.r.L et al | |

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| <u>Priority date</u> | <u>Priority application No.</u> | <u>Country or regional Office or PCT receiving Office</u> | <u>Date of receipt of priority document</u> |
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| 13 June 2003 (13.06.2003) | MI 2003 A 001203 | IT | 10 Sept 2004 (10.09.2004) |

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